WEST Search History

DATE: Wednesday, March 13, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L2	L1 and (micelle$ or emulsion$)	26	L2
L1	lecithin$ same (chlorhexidine or triclosan)	67	L1

END OF SEARCH HISTORY

WEST Search History

DATE: Wednesday, March 13, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L5	L4 and mucosa$	25	L5
L4	micelle$ same lecithin$	189	L4
L3	L1 and lecithin	3	L3
L2	L1 and phospholipid$	0	L2
L1	micelle$ same triclosan	24	L1

END OF SEARCH HISTORY

L2: Entry 23 of 26 File: USPT Jan 13, 1998

US-PAT-NO: 5708023
DOCUMENT-IDENTIFIER: US 5708023 A

TITLE: Zinc gluconate gel compositions

DATE-ISSUED: January 13, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Modak; Shanta M.	Riveredge	NJ		
Sampath; Lester A.	Nyack	NY		
Advani; Balram H.	Upper Saddle River	NJ		

US-CL-CURRENT: 514/494; 424/642, 514/635

CLAIMS:

What is claimed is:

1. A composition comprising a gel matrix formed from zinc gluconate and a solvent selected from the group consisting of water, alcohol, and combinations thereof, wherein the zinc gluconate acts as the sole gelling agent.

2. The composition of claim 1, wherein the gel matrix comprises 50% zinc gluconate.

3. The composition of claim 1 which comprises at least 10% zinc gluconate.

4. The composition of claim 2 which comprises at least 10% zinc gluconate.

5. The composition of claim 1 wherein the gel matrix comprises a therapeutically effective amount of chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

6. The composition of claim 1 wherein the gel matrix comprises a therapeutically effective amount of an antimicrobial agent selected from the group consisting of parachlorometaxylenol, triclosan, povidone iodine, benzalkonium chloride, a silver salt, and a polyoxyethylene alkylphenol compound.

7. The composition of claim 1 wherein the gel matrix comprises a therapeutically effective amount of an anti-allergen.

8. The composition of claim 3 wherein the gel matrix comprises a therapeutically effective amount of chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

9. The composition of claim 3 wherein the gel matrix comprises a therapeutically effective amount of an antimicrobial agent selected from the group consisting of parachlorometaxylenol, triclosan, povidone iodine, benzalkonium chloride, a silver salt, and a polyoxyethylene alklylphenol compound.

10. The composition of claim 3 wherein the gel matrix comprises a therapeutically effective amount of an anti-allergen.

11. The composition of claim 4 wherein the gel matrix comprises a therapeutically effective amount of chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

12. The composition of claim 4 wherein the gel matrix comprises a therapeutically effective amount of an antimicrobial agent selected from the group consisting of parachlorometaxylenol, triclosan, povidone iodine, benzalkonium chloride, a silver salt, and a polyoxyethylene alkylphenol compound.

13. The composition of claim 4 wherein the gel matrix comprises a therapeutically effective amount of anti-allergen.

14. The composition of claim 5 which comprises between about 0.5% to 10% chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

15. The composition of claim 14 which comprises between about 0.5% to 5% chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

16. The composition of claim 8 which comprises between about 0.5% to 10% chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

17. The composition of claim 16 which comprises between about 0.5% to 5% chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

18. The composition of claim 11 which comprises between about 0.5% to 10% chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

19. The composition of claim 18 which comprises between about 0.5% to 5% chlorhexidine or a pharmaceutically acceptable chlorhexidine salt.

20. The composition of claim 1 which is a topical antimicrobial cream.

21. The composition of claim 5 which is a topical antimicrobial cream.

22. The composition of claim 6 which is a topical antimicrobial cream.

23. The composition of claim 7 which is a topical antimicrobial cream.

24. The composition of claim 1 which is a vaginal cream.

25. The composition of claim 5 which is a vaginal cream.

26. The composition of claim 6 which is a vaginal cream.

27. The composition of claim 7 which is a vaginal cream.

28. The composition of claim 1 which is applicable to a wound dressing.

29. The composition of claim 5 which is applicable to a wound dressing.

30. The composition of claim 6 which is applicable to a wound dressing.

31. The composition of claim 7 which is applicable to a wound dressing.

32. The composition of claim 1 which is applicable to a surgical instrument.

33. The composition of claim 5 which is applicable to a surgical instrument.

34. The composition of claim 6 which is applicable to a surgical instrument.

35. The composition of claim 7 which is applicable to a surgical instrument.

36. The composition of claim 1 which is applicable to a glove.

37. The composition of claim 5 which is applicable to a glove.

38. The composition of claim 6 which is applicable to a glove.

39. The composition of claim 7 which is applicable to a glove.

40. The composition of claim 1 which is applicable to a condom.

41. The composition of claim 5 which is applicable to a condom.

42. The composition of claim 6 which is applicable to a condom.

43. The composition of claim 7 which is applicable to a condom.

44. A method of preventing skin irritation comprising applying, to the skin, a composition comprising a gel matrix formed from zinc gluconate and a solvent selected from the group consisting of water, alcohol, and combinations thereof, wherein the zinc gluconate acts as the sole gelling agent.

L2: Entry 19 of 26 File: USPT Mar 16, 1999

DOCUMENT-IDENTIFIER: US 5883059 A
TITLE: Three in one ultra mild lathering antibacterial liquid personal cleansing composition

Brief Summary Paragraph Right (3):
Skin cleansers should cleanse the skin gently, causing little or no irritation, without drying the skin after frequent routine use. Certain synthetic surfactants are particularly mild. However, a major drawback of mild liquid synthetic surfactant systems when formulated for skin cleansing is poor lather performance. Compared to the highest bar soap standards (bars which are rich in coconut soap and superfatted), these prior art liquid surfactant formulations have either poor lather or poor skin mildness performance. As may be expected, the lather performance is a function of the choice of surfactant and its concentration. The conceivable number of liquid surfactant compositions formulated with or without skin feel agents are numerous. Rheological and phase properties exhibited by prototypes vary widely (i.e., thin liquids, gels, thick pastes, solutions, emulsions). The phase stability of prototypes is for the most part acceptable over short time periods, but only a small fraction of them will maintain their original properties and acceptability over an extended period of time. See, e.g., U.S. Pat. No. 4,338,211, Stiros, issued Jul. 6, 1982; U.S. Pat. No. 4,310,433, Stiros, issued Jan. 12, 1982; and U.S. Pat. No. 4,842,850, Vu, issued Jun. 27, 1989, all of said patents being incorporated herein by reference.

Brief Summary Paragraph Right (5):
The introduction of an antibacterial into the equation results in additional problems for mildness, lather, and efficacy. It is reported in trade literature that certain mild ethoxylated nonionic surfactants, e.g., TweenR 80 (ICI Americas, Inc.) and lecithin have deactivating effects on the degerming of a preferred antibacterial, Triclosan (IrgasanR DP 300 is also referred to herein as "TCS"), Ciba-Geigy IrgasanR DP 300 Trade Bulletin, 1988.

Brief Summary Paragraph Right (10):
A stable liquid emulsion personal cleansing composition comprising:

Brief Summary Paragraph Right (12):
A stable liquid emulsion personal cleansing composition comprising:

Brief Summary Paragraph Right (15):
The composition has a viscosity (Brookfield RVT, Spindle 5, 50 rpm, 25.degree. C.) is preferably at least about 1,000 cps, more preferably about 2,000 to 10,000 cps, especially from about 5,000 to about 7,000 cps, and has an average emulsion droplet size of about 0.1 to about 40 microns.

CLAIMS:

1. A liquid emulsion personal cleansing composition comprising, per 100 parts by weight of the composition:

(a) from about 0.1 parts to about 20 parts by weight of anionic surfactant comprising alkyl ethoxylated sulfate,

(b) from about 0.1 parts to about 20 parts by weight of amphoteric surfactant comprising at least one of (i) imidazolinium derivatives of the formula ##STR8##

wherein R.sub.1 is C.sub.7 -C.sub.22 alkyl or alkenyl, R.sub.2 is hydrogen or CH.sub.2 Z, each Z is independently CO.sub.2 M or CH.sub.2 CO.sub.2 M, and M is H, alkali metal, alkaline earth metal, ammonium or alkanolammonium, or ammonium derivatives of the formula ##STR9## wherein R.sub.1, R.sub.2 and Z are as defined above; or (ii) aminoalkanoates of the formula

R.sub.1 NH(CH.sub.2).sub.n CO.sub.2 M

or iminodialkanoates of the formula

R.sub.1 N((CH.sub.2).sub.m CO.sub.2 M).sub.2

where n and m are numbers from 1 to 4, and R.sub.1 and M are as defined above; and mixtures thereof,

(c) from about 0.5 parts to about 25 parts by weight of an oil skin moisturizer comprising an adduct prepared from vegetable oils containing non-conjugated polyunsaturated fatty acid esters which are conjugated and elaidinized and then modified via Diels-Alder addition with a member of the group consisting of acrylic acid, fumaric acid and maleic anhydride,

(d) from about 0.1 parts to about 2.0 parts by weight antibacterial agent, and

(e) water, wherein the anionic surfactant and amphoteric surfactant together comprise from about 0.5 parts to about 30 parts by weight of the composition, wherein the weight ratio of anionic surfactant:amphoteric surfactant is in the range of from about 1:5 to about 20:1, wherein said composition has a viscosity (Brookfield RVT, Spindle 5, 50 rpm, 25.degree. C.) of at least 1,000 cps and has an average emulsion droplet size of 0.1 to about 40 microns, and wherein the weight ratio of alkyl sulfate to alkyl ethoxylated sulfate is not greater than 0.2.

2. A liquid emulsion personal cleansing composition according to claim 1, comprising, per 100 parts by weight of the composition:

(a) from about 1 part to 15 parts by weight of the anionic surfactant,

(b) from about 1 part to 15 parts by weight of the amphoteric surfactant,

(c) from about 0.5 parts to 15 parts by weight of the oily skin moisturizer,

(d) from about 0.1 parts to about 2.0 parts by weight of the antibacterial agent, and

(e) water,

wherein the anionic surfactant and amphoteric surfactant together comprise from about 5 parts to 25 parts by weight of the composition, wherein the weight ratio of anionic surfactant:amphoteric surfactant is in the range from about 1:2 to about 5:1, and wherein said composition has a viscosity (Brookfield RVT, Spindle 5, 50 rpm, 25.degree. C.) of about 5,000 to 7,000 cps and has an average emulsion droplet size of about 0.1 to 40 microns.

3. A liquid emulsion personal cleansing composition according to claim 1, comprising, per 100 parts by weight of the composition:

(a) from about 3 to 12 parts by weight of the anionic surfactant,

(b) from about 3 to 12 parts by weight of the amphoteric surfactant,

(c) from about 3 parts to about 10 parts by weight of the oily skin moisturizer,

(d) from about 0.1 parts to about 2.0 parts by weight of the antibacterial agent, and

(e) water,

wherein the anionic surfactant and amphoteric surfactant together comprise from about 10 parts to 20 parts by weight of the composition, wherein the weight ratio of anionic surfactant:amphoteric surfactant is in the range from about 1:1 to about 2:1, and wherein said composition has a viscosity (Brookfield RVT, Spindle 5, 50 rpm, 25.degree. C.) of about 5,000 to 7,000 cps and has an average emulsion droplet size of about 0.1 to 40 microns.

4. A liquid emulsion personal cleansing compositions comprising, per 100 parts by weight of the composition:

(a) from about 0.1 parts to about 20 parts by weight of anionic surfactant, wherein the anionic surfactant comprises sodium magnesium laureth 3.6 sulfate;

(b) from about 0.1 parts to about 20 parts by weight of amphoteric surfactant, wherein the amphoteric surfactant comprises sodium lauroamphoacetate;

(c) from about 0.5 parts to about 25 parts by weight of an oily skin moisturizer which comprises moisturizers selected from the group consisting of maleated soybean oil, soybean oil, and mixtures thereof;

(d) from about 0.1 parts to about 2.0 parts by weight antibacterial agent, wherein the antibacterial agent comprises 2-hydroxy-4,2',4'-trichlorodiphenylether;

(e) a nonionic surfactant which comprises cocoamide MEA;

(f) a preservative;

(g) a thickener;

(h) a glyceride; and

(i) water;

wherein the anionic surfactant and amphoteric surfactant together comprise from about 0.5 parts to about 30 parts by weight of the composition, wherein the weight ratio of anionic surfactant:amphoteric surfactant is in the range of from about 1:5 to about 20:1, wherein said composition has a viscosity of at least about 1,000 cps and an average emulsion droplet size ranging from 0.1 to about 40 microns, and wherein the weight ratio of alkyl sulfate to alkyl ethoxylated sulfate is not greater than 0.2.

5. A liquid emulsion personal cleansing composition comprising, per 100 parts by weight of the composition:

(a) from about 0.1 parts to about 20 parts by weight of anionic surfactant, wherein the anionic surfactant comprises sodium magnesium laureth 3.6 sulfate;

(b) from about 0.1 parts to about 20 parts by weight of amphoteric surfactant, wherein the amphoteric surfactant comprises sodium lauroamphoacetate;

(c) from about 0.5 parts to about 25 parts by weight of an oily skin moisturizer which comprises moisturizers selected from the group consisting of maleated soybean oil, soybean oil, and mixtures thereof;

(d) from about 0.1 parts to about 2.0 parts by weight antibacterial agent, wherein the antibacterial agent comprises 3,4,4'-trichlorocarbanilide;

(e) a nonionic surfactant which comprises cocoamide MEA;

(f) a preservative;

(g) a thickener;

(h) a glyceride; and

(i) water;

wherein the anionic surfactant and amphoteric surfactant together comprise from about 0.5 parts to about 30 parts by weight of the composition, wherein the weight ratio of anionic surfactant:amphoteric surfactant is in the range of from about 1:5 to about 20:1, wherein said composition has a viscosity of at least about 1,000 cps and an average emulsion droplet size ranging from 0.1 to about 40 microns, and wherein the weight ratio of alkyl sulfate to alkyl ethoxylated sulfate is not greater than 0.2.

6. A liquid emulsion personal cleansing composition according to claim 1, wherein the amphoteric surfactant comprises sodium lauroamphoacetate or cocamidopropyl betaine.

7. A liquid emulsion personal cleansing composition according to claim 1, wherein the oily skin moisturizer comprises soybean oil, maleated soybean oil, or mixtures thereof.

8. A liquid emulsion personal cleansing composition according to claim 1, wherein the anionic surfactant comprises ethoxylated alkyl sulfate, the amphoteric surfactant comprises sodium lauroamphoacetate or cocamidopropyl betaine, and the oily skin moisturizer comprises soybean oil, maleated soybean oil or mixtures thereof.

L2: Entry 17 of 26 File: USPT Nov 9, 1999

DOCUMENT-IDENTIFIER: US 5980925 A
TITLE: High glycerin containing anti-microbial cleansers

Abstract Paragraph Left (1):
Emulsions containing a dermal anchoring/substantive agent, such as glycerin, in high concentration enhance the activity of active ingredients, such as anti-microbial agents like chlorhexidine gluconate. Kits, compositions and methods pertaining to the same are provided. The invention finds application in cleansers such as hand washes, wound cleansers, body washes, mouthwashes, surgical scrubs, etc., and lotions, creams, foams and ointments. Specifically, one embodiment of the emulsion contains greater than 30% of an anchoring/substantive agent such as glycerin and an effective amount of chlorhexidine gluconate. Additionally, the product produced by the process of combining on the skin high glycerin and an anti-microbial is described.

Brief Summary Paragraph Right (4):
A variety of creams, lotions, washes and foams have been developed as an adjunct to protective gloves to sanitize and protect the skin from both the transmission and the receipt of infectious agents. These products contain a variety of wetting agents, fatty acids, solvents, emollients and other agents which act to protect the skin in a variety of ways. However, concern has been raised about the effect of these additives on a variety of active ingredients such as germicides (Larson, E., et al., Effects of a Protective Coating Foam on Scrubbing and Gloving, AMERICAN J. OF INFECTION CONTROL 21 (6): 297 (1993)). For example, it is taught that chlorhexidine and its derivatives are inhibited by a variety of ingredients including anionic surfactants, soaps, gums, sodium alginate, magnesium aluminum silicate, magnesium trisilicate, bentonite, talc, kaolin, high pH, 3% lecithin/polysorbate 80 and polysorbate: 80 (Interaction between Cosmetic Ingredients and Preservatives, COSMETICS & TOILETRIES 110: 81-86 (1995)). To address this concern, investigators have performed studies on the effect of various additives on the efficacy of active ingredients.

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L2: Entry 13 of 26 File: USPT Jun 6, 2000

DOCUMENT-IDENTIFIER: US 6071541 A
TITLE: Pharmaceutical compositions and methods for managing skin conditions

Brief Summary Paragraph Right (25):
The acidic component can include an amount of citric acid sufficient to inhibit hydrogen peroxide decomposition over at least three months. In a more preferred embodiment, the amount of citric acid is sufficient to inhibit hydrogen peroxide decomposition at 40.degree. C. over at least three months. The invention also relates to a gel, paste, cream, lotion, emulsion, or ointment that includes these pharmaceutical compositions.

Brief Summary Paragraph Right (27):
The types of skin conditions that can be treated include seborrheic dermatitis, psoriasis, folliculitis, rosacea, perioral dermatitis, acne, or impetigo or other inflammatory skin conditions. The administration of the components may be topical, such as by at least one of a gel, paste, cream, lotion, emulsion, or ointment. About 1 mg to 10,000 mg of the acidic component, hydrogen peroxide, and antimicrobial agent are administered together for satisfactory results in most cases. In a preferred embodiment, the acidic component, hydrogen peroxide, and antimicrobial agent are administered concurrently. In another embodiment, the acidic component, hydrogen peroxide, and antimicrobial agent are administered concurrently with at least one additional pharmaceutical composition for the prevention or treatment of a skin condition. In this embodiment, the method further includes administering at least one of a surfactant, stabilizer, preservative, moisturizer, anti-inflammatory agent, anti-oxidant, or coloring agent. Alternatively, the acidic component can include an alpha-hydroxy acid, beta-hydroxy acid, or tannic acid and the antimicrobial agent can include a bacteriocide. In a more preferred embodiment, the acidic component includes glycolic, lactic, tannic, citric, or salicylic acid, and the bacteriocide includes triclosan.

Brief Summary Paragraph Right (57):
Pharmaceutical compositions for use in the methods of the present invention suitable for topical administration may be presented as discrete units including aerosol sprays, each containing a predetermined amount of the active ingredient, as a powder, stick, or granules, as creams (e.g., a conditioner), pastes, gels, lotions (e.g., a sunscreen), syrups, or ointments, on sponges or cotton applicators, or as a solution or a suspension in an aqueous liquid, a non-aqueous liquid, an oil-in-water emulsion, or a water-in-oil liquid emulsion. Such compositions may be prepared by any of the methods of pharmacy, but all methods include the step of bringing into association the carrier(s) with the active ingredient, which constitutes one or more necessary ingredients. In general, the compositions are prepared by uniformly and intimately admixing the active ingredient with liquid carriers or finely divided solid carriers or both, and then, if necessary, shaping the product into the desired presentation.

Detailed Description Paragraph Table (3):
% by Ingredient Trade Name/Supplier Weight
Part Deionized Water N/A 46.7 A
Hydroxyethylcellulose CELLOSIZE 1 QP52,000H/Amerchol Part Tetrasodium Ethylene-
HAMP-ENE 220/Akzo 0.1 B Diamine-Tetraacetic Acid Nobel (EDTA) Butylene Glycol
1,3-butylene glycol/ 5 Ashland Aloe Barbadensis Gel Aloe Vera Freeze Dried 0.1 Powder
200:1/Aloe Methyl Gluceth-10 GLUCAM E-10/Amerchol 3 Witch Hazel (Hamamelis Witch
Hazel Distillate, 14% 3 Virginiana) Distillate Zinc Acetate Zinc Acetate, crystals,

0.5 USP/FCC Orange (Citrus Aurantium NATURAL ORANGE 0.3 Dulcis) Extract EXTRACT #71689/ Methylparaben Flavurence Dipotassium Glycyrrhizate N/A 0.3 Lecithin, Tocopherol and OXYSOMES/Barnett 0.3 Magnesium Ascorbyl Phosphate Palmitoyl GLYCOSPHERE 0.2 Hydroxypropyltrimonium PCO/Kobo Amylopectin/Glycerin Crosspolymer, Lecithin, Grape (Vitis Vinifera) Seed Extract Palmitoyl GLYCOSPHERE GT/Kobo 0.5 Hydroxypropyltrimonium Amylopectin/Glycerin Crosspolymer, Lecithin, Camellia Sinensis Extract Epilobium Angustifolium Canadian Willowherb 0.5 Extract Whole Extract (5% in water)/Fytokem Butylene Glycol and Water ACTIPHYTE OF ARNICA 0.5 and Arnica Montana BG50/Active Organics Extract Part Alcohol (denatured) SD Alcohol 40-B, 20 C Anhydrous/ Salicylic Acid Salicylic Acid, powder, 1 USP/FCC/Spectrum Triclosan IRGASAN DP300/Ciba 0.4 Part PPG-5-Ceteth-20 PROCETYL AWS/Croda 1 D PEG-40 Hydrogenated CREMOPHOR RH-40/ 0.6 Castor Oil BASF Retinol and Polysorbate 20 RETINOL 50C/BASF 0.1 Phytonadione N/A 0.1 Linoleic Acid EMERSOL 315/Henkel 0.3 Part Glycolic Acid GLYPURE = 70% Glycolic 9 E Acid/DuPont Part Deionized water N/A 2 F Sodium Hydroxide Sodium Hydroxide, pellets, 2 USP/NF Part Hydrogen Peroxide Hydrogen Peroxide, 35% 1.5 G solution, technical 100% _____ CELLOSIZE QP52,000H and GLUCAM E10 are commercially available from Amerchol Corp. of Edison, NJ; HAMPENE 220 is commercially available from Akzo Nobel Inc. of Dobbs Ferry NY; Aloe Vera Freeze Dried Powder 200:1 is commercially available from Aloe Corp. of TX; OXYSOMES is commercially available from Barnet Products Corporation of Englewood Cliffs, NJ; Canadian Willowherb Whole Extract (5% in water) is commercially available from Fytokem, Inc. of Saskatoon, SK CANADA; GLYCOSPHERE PCO and GLYCOSPHERE GT are commercially available from Kobo Products Inc. of South Plainfield, NJ; ACTIPHYTE OF ARNICA BG50 is commercially available from Active Organics o Dallas, TX; PROCETYL AWS is commercially available from Croda Inc. of Parsippany, NJ; CREMOPHOR RH40 and RETINOL 50C are commercially available from BASF Corporation of Budd Lake, NJ; GLYPURE = 70% Glycolic Acid is commercially available from DuPont of Wilmington, DE; EMERSOL 315 is commercially available from Henkel Corp. of Hoboken, NJ.

CLAIMS:

10. A gel, paste, cream, lotion, emulsion, or ointment comprising the pharmaceutical composition of claim 1.

14. The method of claim 13, wherein the topical administration is by at least one of a gel, paste, cream, lotion, emulsion, or ointment.

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L2: Entry 12 of 26 File: USPT Sep 12, 2000

DOCUMENT-IDENTIFIER: US 6117415 A
TITLE: Toothpaste comprising bioadhesive submicron emulsion for improved delivery of antibacterial and anticaries agents

Brief Summary Paragraph Right (1):
The present invention relates to dental hygienic treatment and more particularly, the present invention relates to a submicron oil-in-water emulsion for prolonged local delivery of selected antibacterial compounds, especially chlorhexidine and chlorhexidine salts, quaternized alkylammonium derivatives, and triclosan, and additionally anticariotic compounds, such as fluorides, especially sodium fluoride, sodium monofluorphosphate and aminofluorides.

Brief Summary Paragraph Right (4):
U.S. Pat. No. 5,130,122, describes a dental composition comprising oil-in-water submicron emulsion for dental use with improved customer properties. Although useful, this formulation has a relatively short retention time and rapid elimination from the mucous surfaces at the application. Sodium lauryl sulfate, needed for submicron emulsion preparation can cause irritation in gums and palate and is incompatible with cationic antibacterial substances, e.g., chlorhexidine salts or alkylammonium derivatives.

Brief Summary Paragraph Right (5):
Another approach to extend the action of different agents is demonstrated in U.S. Pat. No. 5,744,155, where each droplet of the submicron emulsion is coated with polymer possessing pronounced mucoadhesive properties. Interaction of the polymer layer with mucosal surface leads to prolonged presence of the drug loaded lipid particle on the surface thus increasing time for local release of active compounds.

Brief Summary Paragraph Right (9):
Since the active antiseptic component is entrapped into finely dispersed oil phase, its concentration in water is lower, thus unpleasant taste is significantly decreased. Moreover, chlorhexidine in submicron emulsion demonstrates less staining because reduced interaction of the oil droplets with tooth dentine and enamel. The bioadhesive coating of the tiny oil particles, charged with chlorhexidine or triclosan leads to significant prolongation of the drug presence on the mucous surfaces of the mouth, providing extended release of the antiseptic and flavor components.

Brief Summary Paragraph Right (10):
The oil component of the emulsion can be chosen from many physiologically acceptable hydrophobic liquids, such as vegetable oils (soya bean, corn, sunflower, coconut, olive, jojoba, etc.), fish or animal oils, synthetic components--alcanes , squalane, paraffines, mineral oil, mono- and diol

Brief Summary Paragraph Right (16):
Preparation of the submicron emulsion with bioadhesive oil droplets is achieved using a high pressure homogenizer. Different types of such equipment can be used such as Microfluidizer, Gaulin, Avestin, Rainin, etc.

Brief Summary Paragraph Right (17):
Generally speaking, at a first stage, a lipid phase is prepared by dissolution of the antibacterial component in the oil phase together with surfactant mixture,

antioxidant and flavors component. Subsequently, the oil phase undergoes emulsification in a previously prepared water phase comprises diluted water solution of the bioadhesive polymer, using usual propeller or rotor-stator mixer. A coarse emulsion is obtained and treated by the high pressure homogenizer in order to obtain submicron emulsion, followed, if necessary, with pH adjusting.

Brief Summary Paragraph Right (18):
Particle size in the emulsion depends on oil phase concentration, type and concentration of the surfactant and polymer and treatment intensity. Typically, for 5-10% oil phase, the particle size is between 50 and 200 nm, 10-20% oil phase results in 250-350 nm average diameter (measured by light scattering).

Brief Summary Paragraph Right (19):
The prepared bioadhesive submicron emulsion including the antibacterial component can be mixed with water-soluble anti-caries compounds (e.g., sodium fluoride).

Brief Summary Paragraph Right (20):
To prepare a toothpaste based on the bioadhesive emulsion viscosity modifiers, abrasives, sweeteners, humectants, preservatives and other minor components will be added and carefully mixed to obtain the composition with required properties. The paste can be packaged into suitable tubes and can be stored in ambient conditions for long periods of time.

Brief Summary Paragraph Right (24):
Peppermint oil, spearmint oil, menthol, clove oil, lemon oil, other essential oils and artificial flavors can be used as flavor agents. Due to the hydrophobic nature of these components most of the flavor substance will be entrapped into the oil particles of submicron emulsion thus providing prolonged presence in the mouth and a feeling of freshness.

Detailed Description Paragraph Right (1):
Bioadhesive submicron emulsion based toothpaste with 1% chlorhexidine bigluconate.

Detailed Description Paragraph Right (2):
As a first example of the first formulation, the toothpaste composition contains chlorhexidine bigluconate in amount of 1% by weight basis, i.e., 5.2% of 20% solution of chlorhexidine bigluconate. The oil phase comprises 4.5% medium chain triglycerides (MCT oil, Crodamol.TM. TGCC, manufactured by Croda) and 0.5% soya lecithin (Leci PC 35, Lucas Meyer), weight ratio between lecithin and oil phase is 1:10. To prevent lecithin oxidation an antioxidant, alpha-tocopherol acid hemisuccinate, has been found to be useful in the present formulation. It was added in amount of 0.02%.

Detailed Description Paragraph Right (12):
At a second stage of preparation, 50 g of lecithin and 2 g of vitamin E acid succinate and 20 g of peppermint oil or D,L-menthol were consequently added to 450 g of medium chain triglyceride oil (Crodamol TGCC) and stirred slowly until clear solution was prepared. After complete dissolution, 100 g of non-ionic surfactant Tween-20TM was added and stirred for homogenous dispersion. This oil phase was combined with 520 g of 20% chlorhexidine bigluconate solution followed by intensive stirring.

Detailed Description Paragraph Right (13):
In a further stage, the product from the second stage described above was mixed with the material from the first stage, using a high speed rotor-stator type mixer (Ultra-Turrax.RTM., Polytron.RTM.), Silverson.TM. or similar type arrangements) until a homogenous emulsion was formed. The formed emulsion was treated with high pressure homogenizer (Gaulin.RTM., Microfluidizer.RTM., Avestin.RTM. or similar) at predetermined pressure between 600 and 1200 bar. The emulsion was passed between one to three times through the homogenizer to obtain desired submicron emulsion. Sodium saccharine in amount of 20 g and 20 g of sodium benzoate and 800 g of Sorbitol were added to emulsion and stirred until completely dissolved.

Detailed Description Paragraph Right (14):
In the final stage, 147.5 g of hydroxypropylmethylcellulose was dispersed in 784 g of water. This mixture was heated to 90.degree. C. and mixed well until all the Methocel

E100M was hydrated. The homogenized submicron emulsion was added to hydrated Methocel at room temperature and mixed until polymer was homogeneously distributed.

Detailed Description Paragraph Right (16):
A bioadhesive submicron emulsion based toothpaste with 0.3% Triclosan as antibacterial agent, and sodium monofluorphosphate as anti-caries additive for improved oral hygiene.

Detailed Description Paragraph Right (17):
In this example, triclosan arranges as a part of a mixture as a component in amount from 0.1 to 1.0%, or most desirably 0.3%. Further, the triglyceride oil, an example of which is Myritol 318.TM. manufactured by Cospha-Henkel, was incorporated into the mix in amount from between 2.0 to 20%, and desirably 4.62%. Egg lecithin was used as additional emulgator, and high molecular weight caroxymethylcellulose was employed as bioadhesive polymer and also as viscosity regulating agent. Sorbitol was used as 70% solution.

Detailed Description Paragraph Right (20):
This example sets forth a toothpaste based on bioadhesive submicron emulsion with 1% chlorhexidine bigluconate and 0.22% sodium fluoride for oral hygiene. This formulation was prepared as example 1, but part of dibasic calcium phosphate was substituted with 0.22% sodium fluoride to achieve anti-caries properties.

Detailed Description Paragraph Right (21):
This formulation represents submicron emulsion based clear gel for oral hygiene with cetylpiridinium chloride and sodium fluoride. It was prepared by the same method as Example 1, but lipid phase of the submicron emulsion is prepared of isopropyl palmitate and soya lecithin S-75, cetylpiridinium chloride employed as antibacterial agent, and abrasive silica was selected to prepare clear gel. Sodium fluoride is used as anti-caries agent.

Detailed Description Paragraph Right (22):
In this example, a toothpaste based on bioadhesive submicron emulsion with 0.3% of triclosan. This formulation was prepared as example 2, but the amount of carboxymethylcellulose 9M31XF was substituted with Carbopol 934P, and pH was adjusted to 6.0-6.5 to achieve optimal bioadhesive properties of the submicron emulsion.

Detailed Description Paragraph Right (23):
The main advantage of bioadhesive submicron toothpaste is significantly extended presence of the active ingredients of the toothpaste in the mouth thus providing prolonged antiseptic action and better tooth protection. Secondly, most of the antibacterial substance, e.g., chlorhexidine, is located on the oil/water interface of the submicron emulsion, in accordance with thermodynamic properties and partition and free drug concentration in the water phase is significantly decreased. It leads to apparent improvement of the taste of such submicron emulsion compositions. Further, is connected with better penetration of submicron particles inside the surface layer of the oral mucose in the mouth. Flavor components, included in the oil droplets, better penetrate and supply better freshness in local application. Last, but not least factor is significantly lower teeth staining with chlorhexidine toothpastes based on submicron emulsion compositions. Formulation can be readily adjusted by those skilled in the art to numerous modifications, comprising different active components, flavors and another ingredients.

Detailed Description Paragraph Table (1):
Toothpaste Composition of Example 1 Manu-
Component Type/grade facturer %
Chlorhexidine bigluconate USP 20% solution contains: Chlorhexidine 1.04% bigluconate water 4.16% Purified Water USP/NF 32.84% Glycerol USP/NF Henkel 7.00% Sorbitol powder USP/NF Roquette 8.00% MCT (Medium Chain Crodamol Croda 4.50% Triglycerides) oil TGCC alpha-Tocopherol hemisuccinate Vitamin E Eastman 0.02% acid succinate Lecithin (Leci PC 35P) USP/NF Lucas 0.50% Meyer Tween-20 .TM. (Polysorbate-20) USP/NF Croda 1.00% Hydroxypropylmethylcellulose Methocel Dow 1.50% (HPMC) E100M Chemical Dibasic Calcium Phosphate NF Mendell 36.00% dihydrate Colloidal silicon dioxide USP/NF Cabot 1.80% (Cab-O-Sil 300) DL-Menthol or Peppermint oil NF FLUKA 0.20% Na Saccharinate USP/NF 0.20% Na Benzoate NF 0.20% Total 100%

Detailed Description Paragraph Table (2):

Toothpaste composition for Example 2 Manu-
Phase Component Type facturer % A Triclosan USP/NF 0.30% A MCT oil Myritol 318 Cospha- 4.62% Henkel A alpha-Tocopherol Eastman 0.02% hemisuccinate A Lecithin (80% E-80 Lipoid 0.50% phosphatidylcholine) A Tween-80 .TM. USP/NF 1.00% (Polysorbate-80) A Peppermint oil Flavorchem 1.00% B Purified Water 10.00% B Sorbitol 70% NF 18.00% B Carboxymethylcellulose NF Hercules 0.10% 9M31XF C Sorbitol 70% 8.00% C Glycerol 96% Henkel 8.20%

Other Reference Publication (1):
Ilan et al. Pharm. Res. 13(7): 1083-1087 (MA-SME Mucoadhesive Submicron Emulsion), 1996.

CLAIMS:

1. A toothpaste composition, comprising:

a physiologically acceptable oil in water emulsion, composed of submicron particles;

a bioadhesive polymer coating on each particle of said submicron particles; and

at least one antibacterial compound of chlorhexidine or chlorhexidine salt.

10. A toothpaste composition, comprising:

a physiologically acceptable oil in water emulsion, composed of submicron particles and present in an amount from between 0.1% and 50% by weight of said composition;

a bioadhesive polymer coating on each particle of said submicron particles in an amount from between 0.1% and 1.5% by weight;

at least one antibacterial compound of chlorhexidine or chlorhexidine salt in an amount from between 0.1% and 5% by weight; and

filler material in an amount to 100%.

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L2: Entry 10 of 26 File: USPT Apr 17, 2001

DOCUMENT-IDENTIFIER: US 6217889 B1
TITLE: Personal care articles

Brief Summary Paragraph Right (111):
Petrolatum, which is also known as petroleum jelly, is a colloidal system of nonstraight-chain solid hydrocarbons and high-boiling liquid hydrocarbons, in which most of the liquid hydrocarbons are held inside the micelles. See The Merck Index, Tenth Edition, Entry 7047, p. 1033 (1983); Schindler, Drug. Cosmet. Ind., 89, 36-37, 76, 78-80, 82 (1961); and International Cosmetic Ingredient Dictionary, Fifth Edition, vol. 1, p. 537 (1993), which are incorporated by reference herein in their entirety.

Brief Summary Paragraph Right (122):
The therapeutic benefit component may be made into a variety of forms. In one embodiment of the present invention, the therapeutic benefit component is in the form of an emulsion. For instance, oil-in-water, water-in-oil, water-in-oil-in-water, and oil-in-water-in-silicone emulsions are useful herein. As used in the context of emulsions, "water" may refer not only to water but also water soluble or water miscible agents like glycerin.

Brief Summary Paragraph Right (123):
Preferred therapeutic benefit components comprise an emulsion, which further comprises an aqueous phase and an oil phase. As will be understood by the skilled artisan, a given component will distribute primarily into either the aqueous or oil phase, depending on the water solubility/dispersibility of the therapeutic benefit agent in the component. In one embodiment, the oil phase comprises one or more hydrophobic conditioning agents. In another embodiment, the aqueous phase comprises one or more hydrophilic conditioning agents.

Brief Summary Paragraph Right (124):
Therapeutic benefit components of the present invention, which are emulsion form, generally contain an aqueous phase and an oil or lipid phase. Suitable oils or lipids may be derived from animals, plants, or petroleum and may be natural or synthetic (i.e., man-made). Such oils are discussed above in the Hydrophobic Conditioning Agents section. Suitable aqueous phase components include the Hydrophilic Conditioning Agents, which are discussed above. Preferred emulsion forms include water-in-oil emulsions, water-in-silicone emulsions, and other inverse emulsions. Additionally, preferred emulsions also contain a hydrophilic conditioning agent such as glycerin such that a glycerin-in-oil emulsion results.

Brief Summary Paragraph Right (125):
Therapeutic benefit components in emulsion form will preferably further contain from about 1% to about 10%, more preferably from about 2% to about 5%, of an emulsifier, based on the weight of therapeutic benefit component. Emulsifiers may be nonionic, anionic or cationic. Suitable emulsifiers are disclosed in, for example, U.S. Pat. NO. 3,755,560, issued Aug. 28, 1973, Dickert et al.; U.S. Pat. No. 4,421,769, issued Dec. 20, 1983, Dixon et al.; and McCutcheon's Detergents and Emulsifiers, North American Edition, pages 317-324 (1986). Therapeutic benefit components in emulsion form may also contain an anti-foaming agent to minimize foaming upon application to the skin. Anti-foaming agents include high molecular weight silicones and other materials well known in the art for such use.

Detailed Description Paragraph Right (39):
Process for all emulsions:

Detailed Description Paragraph Right (50):
Blend the surfactants and fatty alcohol while heating to 65.degree. C. with a low speed impeller mixer. Remove from heat, allow to cool to 65.degree. C. while continuing to mix. Add the cationic polymer and stir until homogeneous. Slowly add remaining Part A ingredients while stirring. Homogenize to disperse the SEFA as an emulsion. Titrate with concentrated sulfuric acid until a pH of about 6.5 is reached. Prepare a dried mixture by spreading the Part A composition in trays and drying in a suitable (vacuum or convection) oven at a temperature not exceeding 65.degree. C. until essentially no water remains. Blend the dried Part A ingredients with the polymeric gelling agents from Part B, heat to dissolve or disperse. Blend the resulting composition with the physical gelling agents. Heat to melt and dissolve gelling agents into the composition. Apply to substrate surface(s) or cool to room temperature and store.

Detailed Description Paragraph Right (99):
The cleansing component of Example 11 is applied to one side of a first substrate by extruding it through a coating head continuously in four lines separated by a distance of 20 mm, 40 mm, and 20 mm respectively, measuring widthwise across the web, making a pair of parallel lines on each side of the web. The cleansing component is extruded at a rate to yield 4.4 grams of cleansing component per finished article. The substrate is a spunlace blend of 70% rayon and 30% PET fibers, bonded with a styrene-butadiene adhesive, which is hydroapertured to form holes about 2 mm in diameter and having a basis weight of about 70 gsm. A second substrate web which is an airlaid, lofty, low density batting is continuously fed over the first substrate placing it in contact with the surfactant-containing layer. The batting comprises a blend of 30% 15 denier PET fibers, 35% 3 denier bicoinponent fibers with PET core and PE sheath, and 35% 10 denier bicomponent fibers of the same core-sheath composition, and has a basis weight of about 100 grams per square meter (gsm). A third substrate web which is the same as the second substrate web is continuously fed over the second substrate web placing it in contact with the second substrate. The webs are continuously fed to an ultrasonic sealer which seals a dot pattern comprising a grid of 4 mm diameter sealing points spaced evenly across the web. Skin conditioning composition is slot coated from a hot reservoir pumped through a slot dye onto both sides of the substrate web at a rate equal to 3 grams of skin conditioning composition per finished article (about 140 gsm add-on per side), and passed across a cooling fan so the composition cools quickly on the article outer surfaces. The slot coating reservoir is continuously mixed to maintain stability of the emulsion. The web is cut into individual articles measuring about 120 mm.times.90 mm rectangles with rounded corners.

Detailed Description Paragraph Right (109):
A skin conditioning inverse emulsion paste is prepared for use with the article, as follows:

Detailed Description Paragraph Left (1):
The lipid soluble ingredients are heated to 70.degree. C. while stirring. Glycerin is slowly added with vigorous stirring. The composition is homogenized. Three grams of the skin conditioning inverse emulsion paste is pipetted hot into the depressed zones on the cellulose/polyester side of the article. The composition quickly cools to a semi-solid paste. The article is packaged until ready for use.

Detailed Description Paragraph Table (21):
Exam- Exam- Exam- Example Example Component ple 37 ple 38 ple 39 40 41 Hydrophobic Phase: SEFA* cottonate 15.0 16.0 SEFA* behenate 7.5 4.0 Tribehenin 6.0 Petrolatum 4.0 4.0 4.4 Cocoa butter 15.5 Polydecene.sup.1 50.0 46.5 C10-C30 13.0 10.5 Cholesterol/ Lanosterol esters PEG 30 3.0 3.0 dipolyhydroxy- stearate Ceresin wax 5.5 Beeswax 7.0 Aluminum/ 7.5 magnesium hydroxystearate in mineral oil.sup.2 C30-38 2.5 Olefin/isopropyl maleate copolymer.sup.3 Polyethylene wax.sup.4 1.0 Lecithin, purified 10.0 Fragrance and 1.0 misc. 1-Monostearin 10.0 Hydrophilic Phase: Glycerin 30.0 25.0 34.80 20.0 38.0 Water 8.0 8.0 5.0 PEG 2000 17.0 PVM/MA 0.25 decadiene crosspolymer Sodium hydroxide 0.25 (10% solution) Gelatin 9.50 9.50 2.6 Active skin care ingredients: Nicotinamide 2.50 Menthol in 50% 2.50 beta cyclodextrin Ascorbic

acid 2.50 (natural) Tocopherol 1.00 2.50 (natural) Sorbitol 2.50 Lactic acid 2.5 Urea 2.50 Allantoin 0.20 Triclosan 1.50 Chlorhexidine 0.50 Benzoyl peroxide 5.0 15% Salicylic acid 12.0 in PPG 14 butyl ether Salicylic acid 2.5 .sup.1 Available as Puresyn 3000 from Mobil .sup.2 Available as Gilugel Min from Giulini Chemie .sup.3 Available as Performa 1608 from New Phase Technologies .sup.4 Available as Performalene 400 from New Phase Technologies

Detailed Description Paragraph Table (24):
Component Example 53 Example 54 Example 55 Hydrophobic Phase: Lecithin, purified.sup.1 15.4 10.3 10.8 Decane 28.6 19.2 15.0 Mineral Oil 5.0 Tricontanyl PVP.sup.2 26.0 Stearyl alcohol 13.0 12-hydroxystearic acid 19.4 Hydrophilic Phase: Glycerin 28.0 18.8 19.6 Propylene glycol 28.0 18.8 19.6 Active skin care ingredients: Triclosan 0.20 Salicylic acid 0.40 Nicotinamide 4.0 .sup.1 Available as Epikuron 200 from Lucas Meyer .sup.2 Available as Ganex WP-660 from ISP

CLAIMS:

15. The article of claim 13 wherein said therapeutic benefit component is in the form of an emulsion.

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Search Results - Record(s) 1 through 26 of 26 returned.

☐ 1. Document ID: US 6350398 B1

L2: Entry 1 of 26 File: USPT Feb 26, 2002

US-PAT-NO: 6350398
DOCUMENT-IDENTIFIER: US 6350398 B1

TITLE: Process for producing coated solid dosage forms

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6322801 B1

L2: Entry 2 of 26 File: USPT Nov 27, 2001

US-PAT-NO: 6322801
DOCUMENT-IDENTIFIER: US 6322801 B1

TITLE: Personal care articles

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6296880 B1

L2: Entry 3 of 26 File: USPT Oct 2, 2001

US-PAT-NO: 6296880
DOCUMENT-IDENTIFIER: US 6296880 B1

TITLE: Pharmaceutical compositions and methods for managing skin conditions

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 4. Document ID: US 6287542 B1

L2: Entry 4 of 26 File: USPT Sep 11, 2001

US-PAT-NO: 6287542
DOCUMENT-IDENTIFIER: US 6287542 B1

TITLE: Encapsulation

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC
Draw Desc | Image

☐ 5. Document ID: US 6284803 B1

L2: Entry 5 of 26 File: USPT Sep 4, 2001

US-PAT-NO: 6284803
DOCUMENT-IDENTIFIER: US 6284803 B1

TITLE: Solid dosage form with polymeric binder

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC
Draw Desc | Image

☐ 6. Document ID: US 6274554 B1

L2: Entry 6 of 26 File: USPT Aug 14, 2001

US-PAT-NO: 6274554
DOCUMENT-IDENTIFIER: US 6274554 B1

TITLE: Method for preventing and treating hearing loss using a neurturin protein product

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC
Draw Desc | Image

☐ 7. Document ID: US 6268359 B1

L2: Entry 7 of 26 File: USPT Jul 31, 2001

US-PAT-NO: 6268359
DOCUMENT-IDENTIFIER: US 6268359 B1

TITLE: Preventives or remedies for vision disorders

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 8. Document ID: US 6267975 B1

L2: Entry 8 of 26 File: USPT Jul 31, 2001

US-PAT-NO: 6267975
DOCUMENT-IDENTIFIER: US 6267975 B1

TITLE: Personal care articles

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 9. Document ID: US 6221368 B1

L2: Entry 9 of 26 File: USPT Apr 24, 2001

US-PAT-NO: 6221368
DOCUMENT-IDENTIFIER: US 6221368 B1

TITLE: Process for producing solid dosage forms by extrusion

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 10. Document ID: US 6217889 B1

L2: Entry 10 of 26 File: USPT Apr 17, 2001

US-PAT-NO: 6217889
DOCUMENT-IDENTIFIER: US 6217889 B1

TITLE: Personal care articles

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 11. Document ID: US 6165529 A

L2: Entry 11 of 26 File: USPT Dec 26, 2000

US-PAT-NO: 6165529
DOCUMENT-IDENTIFIER: US 6165529 A

TITLE: Process for preventing fresh produce and coating composition therefor

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 12. Document ID: US 6117415 A

L2: Entry 12 of 26 File: USPT Sep 12, 2000

US-PAT-NO: 6117415
DOCUMENT-IDENTIFIER: US 6117415 A

TITLE: Toothpaste comprising bioadhesive submicron emulsion for improved delivery of antibacterial and anticaries agents

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 13. Document ID: US 6071541 A

L2: Entry 13 of 26 File: USPT Jun 6, 2000

US-PAT-NO: 6071541
DOCUMENT-IDENTIFIER: US 6071541 A

TITLE: Pharmaceutical compositions and methods for managing skin conditions

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 14. Document ID: US 6043221 A

L2: Entry 14 of 26 File: USPT Mar 28, 2000

US-PAT-NO: 6043221
DOCUMENT-IDENTIFIER: US 6043221 A

TITLE: Method for preventing and treating hearing loss using a neuturin protein product

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 15. Document ID: US 6037386 A

L2: Entry 15 of 26 File: USPT Mar 14, 2000

US-PAT-NO: 6037386
DOCUMENT-IDENTIFIER: US 6037386 A

TITLE: Composition for inactivating irritants in fluids

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 16. Document ID: US 6013280 A

L2: Entry 16 of 26 File: USPT Jan 11, 2000

US-PAT-NO: 6013280
DOCUMENT-IDENTIFIER: US 6013280 A

TITLE: Immediate release dosage forms containing microspheres

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 17. Document ID: US 5980925 A

L2: Entry 17 of 26 File: USPT Nov 9, 1999

US-PAT-NO: 5980925
DOCUMENT-IDENTIFIER: US 5980925 A

TITLE: High glycerin containing anti-microbial cleansers

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 18. Document ID: US 5965610 A

L2: Entry 18 of 26 File: USPT Oct 12, 1999

US-PAT-NO: 5965610
DOCUMENT-IDENTIFIER: US 5965610 A

TITLE: Composition for inactivating irritants in fluids

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 19. Document ID: US 5883059 A

L2: Entry 19 of 26 File: USPT Mar 16, 1999

US-PAT-NO: 5883059
DOCUMENT-IDENTIFIER: US 5883059 A

TITLE: Three in one ultra mild lathering antibacterial liquid personal cleansing composition

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 20. Document ID: US 5783535 A

L2: Entry 20 of 26 File: USPT Jul 21, 1998

US-PAT-NO: 5783535
DOCUMENT-IDENTIFIER: US 5783535 A

TITLE: Detergent composition comprising an amidoether derivative mixture and a conditioning component

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 21. Document ID: US 5741778 A

L2: Entry 21 of 26 File: USPT Apr 21, 1998

US-PAT-NO: 5741778
DOCUMENT-IDENTIFIER: US 5741778 A

TITLE: Method for treating Huntington's disease using glial cell line-derived neurotrophic factor (GDNF) protein product

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw. Desc | Image

☐ 22. Document ID: US 5736516 A

L2: Entry 22 of 26 File: USPT Apr 7, 1998

US-PAT-NO: 5736516
DOCUMENT-IDENTIFIER: US 5736516 A

TITLE: Methods for treating photoreceptors using glial cell line-derived neurotrophic factor (GDNF) protein protein

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw. Desc | Image

☐ 23. Document ID: US 5708023 A

L2: Entry 23 of 26 File: USPT Jan 13, 1998

US-PAT-NO: 5708023
DOCUMENT-IDENTIFIER: US 5708023 A

TITLE: Zinc gluconate gel compositions

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw. Desc | Image

☐ 24. Document ID: US 5686403 A

L2: Entry 24 of 26 File: USPT Nov 11, 1997

US-PAT-NO: 5686403
DOCUMENT-IDENTIFIER: US 5686403 A

TITLE: Cleanser composition containing phosphate ester and ether acetate surfactants

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw. Desc | Image

☐ 25. Document ID: US 5641750 A

L2: Entry 25 of 26 File: USPT Jun 24, 1997

US-PAT-NO: 5641750
DOCUMENT-IDENTIFIER: US 5641750 A

TITLE: Methods for treating photoreceptors using glial cell line-derived neurotrophic factor (GDNF) protein product

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw. Desc | Image

☐ 26. Document ID: US 5641749 A

L2: Entry 26 of 26 File: USPT Jun 24, 1997

US-PAT-NO: 5641749
DOCUMENT-IDENTIFIER: US 5641749 A

TITLE: Method for treating retinal ganglion cell injury using glial cell line-derived neurothrophic factor (GDNF) protein product

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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Terms	Documents
L1 and (micelle$ or emulsion$)	26

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L1: Entry 24 of 24 File: USPT Jan 16, 1990

DOCUMENT-IDENTIFIER: US 4894220 A
TITLE: Antibacterial antiplaque oral composition

Brief Summary Paragraph Right (37):
Without being bound to a theory whereby the advantages of this invention are achieved, is believed that an aqueous, humectant vehicle is normally solubilized in surfactant micelles in the mobile phase (that is, not including gelling agent and polishing agent) of a dentfrice formula or in a mouthrinse. The mouthrinse or mobile phase solution of dentifrice during use becomes diluted with saliva and triclosan would precipitate out without the presence of highly solubilizing humectant. On the other hand, propylene glycol being a strong solubilizing agent for triclosan, appears to prevent such a situation and permit continued humectant presence with triclosan. In this regard it is noted that propylene glycol is widely used in drug delivery systems for its strong interaction with biological membranes. It is expected that triclosan is partitioned from aqueous environment into propylene glycol and surfactant emulsions during use and further that propylene glycol in bulk phase allows greater probability of triclosan emergence out of surfactant micelles, thereby rendering triclosan available for delivery into bacterial and soft surfaces as well as onto tooth surfaces. Similar remarks would apply to other water-insoluble noncationic antibacterial agents herein described.

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L3: Entry 1 of 3 File: USPT Mar 20, 2001

US-PAT-NO: 6204230
DOCUMENT-IDENTIFIER: US 6204230 B1

TITLE: Antibacterial compositions containing a solvent, hydrotrope, and surfactant

DATE-ISSUED: March 20, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Taylor; Timothy J.	Phoenix	AZ		
Seitz, Jr.; Earl P.	Scottsdale	AZ		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
The Dial Corporation	Scottsdale	AZ			02

APPL-NO: 9/ 467716 [PALM]
DATE FILED: December 21, 1999

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This is a continuation-in-part of U.S. patent application Ser. No. 09/338,654, filed Jun. 23, 1999, now U.S. Pat. No. 6,107,261.

INT-CL: [7] C11 D 3/48, C11 D 1/83, C11 D 3/43

US-CL-ISSUED: 510/131; 510/130, 510/237, 510/382, 510/386, 510/387, 510/388, 510/432, 510/503, 510/426, 510/427
US-CL-CURRENT: 510/131; 510/130, 510/237, 510/382, 510/386, 510/387, 510/388, 510/426, 510/427, 510/432, 510/503

FIELD-OF-SEARCH: 510/130, 510/131, 510/237, 510/382, 510/386, 510/387, 510/388, 510/432, 510/503, 510/426, 510/427

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

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☐	743984	January 1956	Maurice	81/1
☐	4093745	June 1978	Wood et al.	424/358
☐	4111844	September 1978	Polony et al.	252/106
☐	4350605	September 1982	Hughett	252/305
☐	4518517	May 1985	Eigen et al.	252/107

☐	4666615	May 1987	Disch et al.	252/11
☐	4675178	June 1987	Klein et al.	424/65
☐	4702916	October 1987	Geria	424/400
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☐	4832861	May 1989	Resch	252/106
☐	4851214	July 1989	Walters et al.	424/65
☐	4954281	September 1990	Resch	252/107
☐	4975218	December 1990	Rosser	252/117
☐	5006529	April 1991	Resch	514/721
☐	5057311	October 1991	Kamegai et al.	424/70
☐	5147574	September 1992	Mac Gilp et al.	252/108
☐	5158699	October 1992	MacGilp et al.	252/132
☐	5234618	August 1993	Kamegai et al.	252/106
☐	5415810	May 1995	Lee et al.	252/545
☐	5417875	May 1995	Nozaki	252/106
☐	5441671	August 1995	Cheney et al.	252/549
☐	5462736	October 1995	Rech et al.	424/401
☐	5480586	January 1996	Jakubicki et al.	252/545
☐	5635462	June 1997	Fendler et al.	510/131
☐	5635468	June 1997	Fowler et al.	510/406
☐	5635469	June 1997	Fowler et al.	510/406
☐	5646100	July 1997	Haugk et al.	510/131
☐	5653970	August 1997	Vermeer	424/70.24
☐	5681802	October 1997	MacGilp et al.	252/132
☐	5716626	February 1998	Sakurai et al.	424/401
☐	5728756	March 1998	Gaffar et al.	524/139
☐	5730963	March 1998	Hilliard, Jr. et al.	424/65
☐	5824650	October 1998	De Lacharriere et al.	514/15
☐	5837272	November 1998	Fierro, Jr. et al.	424/401
☐	5851974	December 1998	Sandhu	510/235
☐	5863524	January 1999	Mason et al.	424/65
☐	5871718	February 1999	Lucas et al.	424/65
☐	5888524	March 1999	Cole	424/402
☐	5919438	July 1999	Saint-Leger	424/70.1
☐	5955408	September 1999	Kaiser et al.	510/131
☐	5985294	November 1999	Peffly	424/401

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0 505 935	September 1992	EPX	
WO 95/09605	April 1995	WOX	
WO 95/32705	December 1995	WOX	
96/06152	February 1996	WOX	
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Mitchell, J. Pharm. Pharmacol, 16, pp. 533-537 (1964).

ART-UNIT: 171
PRIMARY-EXAMINER: Gupta; Yogendra
ASSISTANT-EXAMINER: Boyer; Charles
ATTY-AGENT-FIRM: Marshall, O'Toole, Gerstein, Murray & Borun

ABSTRACT:

Antibacterial compositions having excellent antibacterial effectiveness are disclosed. The antibacterial compositions contain a polyhydric solvent, a hydrotrope, a surfactant, an optional antibacterial agent, and water.

37 Claims, 0 Drawing figures

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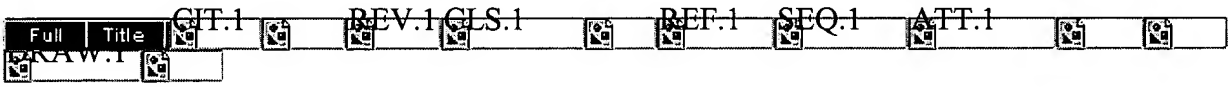

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L5: Entry 10 of 25 File: USPT Jan 25, 2000

DOCUMENT-IDENTIFIER: US 6017545 A
TITLE: Mixed micellar delivery system and method of preparation

Brief Summary Paragraph Right (4):
The oral routes have received far more attention than has the other routes. The sublingual mucosa includes the membrane of ventral surface of the tongue and the floor of the mouth whereas the buccal mucosa constitutes the lining of the cheek. The sublingual mucosa is relatively permeable thus giving rapid absorption and acceptable bioavailability of many drugs. Further, the sublingual mucosa is convenient, acceptable and easily accessible. This route has been investigated clinically for the delivery of a substantial number of drugs.

Brief Summary Paragraph Right (5):
The ability of molecules to permeate through the oral mucosa appears to be related to molecular size, lipid solubility and peptide protein ionization. Small molecules, less than 1000 daltons appear to cross mucosa rapidly. As molecular size increases, the permeability decreases rapidly. Lipid soluble compounds are more permeable than non-lipid soluble molecules. Maximum absorption occurs when molecules are un-ionized or neutral in electrical charges. Therefore charged molecules present the biggest challenges to absorption through the oral mucosae.

Brief Summary Paragraph Right (8):
Many enhancers have been tested so far and some have found to be effective in facilitating mucosal administration of large molecule drugs. However, hardly any penetration enhancing products have reached the market place. Reasons for this include lack of a satisfactory safety profile respecting irritation, lowering of the barrier function, and impairment of the mucocilliary clearance protective mechanism. The main factor to be considered in the use of enhancers especially related to bile salts, and some protein solubilizing agents is extremely bitter and unpleasant taste. This makes their use almost impossible for human consumption on a daily basis. Several approaches were utilized to improve the taste of the bile salts based delivery systems, but none one of them are commercially acceptable for human consumption to date. Among the approaches utilized includes patch for buccal mucosa, bilayer tablets, controlled release tablets, use of protease inhibitors, buccally administered film patch devices, and various polymer matrices.

Brief Summary Paragraph Right (9):
The basic problem associated with the above technologies is the use of large quantities of bile acids and their salts to promote the transport of the large molecules through membranes in the form of localized delivery system using patches or tablets. In spite of using protease inhibitors and polymer coatings the technologies failed to deliver proteinic drugs in the required therapeutic concentrations. Further, the problem is compounded because of the localized site effect of the patch which resulted in severe tissue damage in the mouth. Most attempts were made to deliver large molecules via the oral, nasal, rectal, and vaginal routes using single bile acids or enhancing agents in combination with protease inhibitors and biodegradable polymeric materials. However, it is extremely difficult to achieve therapeutic levels of proteinic drugs using these formulations. As single enhancing agents fails to loosen tight cellular junctions in the oral, nasal, rectal and vaginal cavities for a required period of time to allow passage of large molecules through the mucosal membranes without further degradation. This problem makes it impractical to use the above mentioned systems for a commercial purpose.

Brief Summary Paragraph Right (10):
In order to overcome the above mentioned problem of the bitter taste, irritation and the penetration of large molecules through the sublingual, buccal and GI tract mucosal lining, a system has now been designed where protein drug was encapsulated in mixed micelles made up of combination of enhancers, e.g. yolk proteins (lecithins). This system allows opening of the paracellular junctions (tight junctions) in oral as well as in GI tract by gI motility movement with high degree of protease activity preserved and protecting molecules from premature degradation in the hostile acidic and proteolytic GI environment.

Brief Summary Paragraph Right (11):
It is believed that the mixed micelles encapsulate molecules with high degree of efficiency (>90% encapsulation). These mixed micelles are extremely small in the size (1 nm to 10 nm), and are smaller than the pores of the membranes in the oral cavity or the GI tract. It is therefore believed that the extremely small size of mixed micelles helps encapsulated molecules penetrate efficiently through the mucosal membranes of the oral cavity.

Brief Summary Paragraph Right (14):
The therapeutic composition of the present invention can be stored at room temperature or at cold temperature. Storage of proteinic drugs is preferable at the cold temperature to prevent the degradation of the drugs and to extend their shelf life. While the mixed micellar therapeutic composition of the invention is applied to the mucosal membranes, the sites of administration may the same as those used for the usual mucosal therapeutic preparation. Generally, oral, transdermal and nasal are the favourite sites of the administration but the composition can be applied to the rectal and vaginal mucosa. According to the physiologically active peptide or protein used, the dosage form and the site of administration, a specific administration method can be selected.

Brief Summary Paragraph Right (16):
Accordingly the present invention provides a mixed micellar pharmaceutical formulation, having a pH of between 6.0 and 7.0 comprising a proteinic pharmaceutical agent in micellar form, water, an alkali metal lauryl sulphate in a concentration of from 1 to 10 wt./wt. % of the total formulation, a pharmaceutically acceptable edetate in a concentration of from 1 to 10 wt./wt. % of the total formulation, at least one alkali metal salicylate in a concentration of from 1 to 10 wt./wt. % of the total formulation, and at least one micelle forming compound selected from the group consisting of lecithin, hyaluronic acid, pharmaceutically acceptable salts of hyaluronic acid, octylphenoxypolyethoxyethanol, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linolenic acid, borage oil, evening of primrose oil, trihydroxy oxo cholanylglycine, glycerin, polyglycerin, lysine, polylysine, triolein and mixtures thereof, wherein the amount of each absorption enhancing compound is present in a concentration of from 1 to 10 wt./wt. % of the total formulation, and the total concentration of absorption enhancing compounds are less than 50 wt./wt. % of the formulation.

Brief Summary Paragraph Right (28):
The formulation suitable for delivery through oral mucosal membranes may be in chewable form, in which case it will be necessary to add ingredients suitable for such form. Such ingredients include guar gum, powdered acacia, carrageenin, beeswax and xanthan gum.

Brief Summary Paragraph Right (46):
The micellar solution is then added slowly to the first absorption enhancing compound, e.g. lecithin while mixing vigorously, e.g. sonicating, to form a mixed micelle liposomal solution. At least one other absorption enhancing compounds selected from the group consisting of lecithin, hyaluronic acid, pharmaceutically acceptable salts of hyaluronic acid, octylphenoxypolyethoxyethanol, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linolenic acid, borage oil, evening of primrose oil, trihydroxy oxo cholanylglycine, glycerin, polyglycerin, lysine, polylysine, triolein is then added. The mixing may be done with a high speed mixer or sonicator to ensure uniform micelle particle size distribution within the formulation.

Brief Summary Paragraph Right (54):
As indicated hereinbefore, generally, oral and nasal are the favourite sites of the administration but the composition can be applied to the rectal and vaginal mucosa. According to the physiologically active peptide or protein used, the dosage form and the site of administration a specific administration method can be selected.

CLAIMS:

1. A process for making a pharmaceutical composition suitable for delivery through mucosal membranes comprising:

a) preparing a proteinic pharmaceutical agent composition in micellar form in an aqueous medium which has an alkali metal salicylate in a concentration of from 1 to 10 wt./wt. % of the aqueous micellar pharmaceutical agent composition, an alkali metal lauryl sulphate in a concentration of from 1 to 10 wt./wt. % of the aqueous micellar pharmaceutical agent composition and a pharmaceutically acceptable edetate in a concentration of from 1 to 10 wt./wt. % of the aqueous micellar pharmaceutical agent composition;

b) slowly adding the micellar proteinic pharmaceutical agent composition, while mixing vigorously, to at least one absorption enhancing compound, while continuing to mix vigorously, said absorption enhancing compounds being selected from the group consisting of lecithin, hyaluronic acid, pharmaceutically acceptable salts of hyaluronic acid, octylphenoxypolyethoxyethanol, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linolenic acid, borage oil, evening of primrose oil, trihydroxy oxo cholanylglyine, glycerin, polyglycerin, lysine, polylysine, triolein and mixtures thereof, wherein the amount of each absorption enhancing compound is present in a concentration of from 1 to 10 wt./wt. % of the total formulation, and the total concentration of alkali metal salicylate, alkali metal lauryl sulphate, edetate and absorption enhancing compounds is less than 50 wt./wt. % of the formulation.

L5: Entry 9 of 25 File: USPT Mar 21, 2000

DOCUMENT-IDENTIFIER: US 6040295 A
TITLE: Formulated nucleic acid compositions and methods of administering the same for gene therapy

Brief Summary Paragraph Right (6):
By "suitable for internal administration" is meant that the compounds are suitable to be administered within the tissue of an organism, for example within a muscle or within a joint space, intradermally or subcutaneously. Other forms of administration which may be utilized are topical, oral, pulmonary, nasal and mucosal; for example, buccal, vaginal or rectal.

Brief Summary Paragraph Right (9):
The compounds which prolong the localized bioavailability of a nucleic acid may also achieve one or more of the following effects, due to their physical, chemical or rheological properties: (1) Protect nucleic acid, for example plasmid DNA, from nucleates due to viscosity effects; (2) increase the area of contact between nucleic acid, such as plasmid DNA, through extracellular matrices and over cellular membranes, into which the nucleic acid is to be taken up; (3) concentrate nucleic acid, such as plasmid DNA, at cell surfaces due to water exclusion; (4) indirectly facilitate uptake of nucleic acid, such as plasmid DNA, by disrupting cellular membranes due to osmotic, hydrophobic or lytic effects. The following polymers, oils and surfactants may be suitable for use as compounds which prolong the localized bioavailability of a nucleic acid: Celluloses, including salts of carboxymethylcelluloses, methylcelluloses, hydroxypropylcelluloses, hydroxypropylmethylcelluloses; salts of hyaluronates; salts of alginates; heteropolysaccharides (pectins); poloxamers (Pluronics); poloxamines (Tetronics); ethylene vinyl acetates; polyethylene glycols; dextrans; polyvinylpyrrolidones; chitosans; polyvinylalcohols; propylene glycols; polyvinylacetates; phosphatidylcholines (lecithins); miglyols; polylactic acid; polyhydroxybutyric acid. These substances may be prepared as solutions, suspensions, gels, emulsions or microemulsions of a water/oil (w/o), water/oil/water (w/o/w), oil/water (o/w) or oil/water/oil (o/w/o) type. Oil suspensions of lyophilized nucleic acid, such as plasmid DNA may be utilized. Carriers for these oil suspensions include, but are not limited to, sesame oil, cottonseed oil, soybean oil, lecithins, Tweens, Spans and Miglyols. By "solutions" is meant water soluble polymers and/or surfactants in solution with nucleic acids. By "suspensions" is meant water insoluble oils containing suspended nucleic acids. By "gels" is meant high viscosity polymers containing nucleic acids. By "emulsion" is meant a dispersed system containing at least two immiscible liquid phases. Emulsions usually have dispersed particles in the 0.1 to 100 micron range. They are typically opaque and thermodynamically unstable. Nucleic acids in the water phase can be dispersed in oil to make a w/o emulsion. This w/o emulsion can be dispersed in a separate aqueous phase to yield a w/o/w emulsion. Alternatively, a suitable oil could be dispersed in an aqueous phase to form an o/w emulsion. A "microemulsion" has properties intermediate to micelles and emulsions and is characterized in that they are homogenous, transparent and thermodynamically stable. They form spontaneously when oil, water, surfactant and cosurfactant are mixed together. Typically, the diameter of the dispersed phase is 0.01 to 0.1 microns, usually of the w/o and o/w type.

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☐ 16. Document ID: US 5834022 A

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☐ 17. Document ID: US 5785976 A

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☐ 18. Document ID: US 5750512 A

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☐ 21. Document ID: US 5665379 A

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☐ 22. Document ID: US 5654288 A

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☐ 24. Document ID: US 5230884 A

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25. Document ID: US 5116615 A

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